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10/076,905	02/14/2002	Ze'ev Ronai	2420/11249US2	1884
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			ART UNIT	PAPER NUMBER
			1643	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/076,905

Applicant(s)

RONAI, ZE'EV

Examiner

Stephen L. Rawlings, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4,8-13,15-32,35-43 and 48-51 is/are pending in the application.
- 4a) Of the above claim(s) 16-19,22 and 30-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 8-13, 15, 20, 21, 23-29, 35-43, and 48-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: See Continuation Sheet.  
*notice of compliance*

Continuation of Attachment(s) 6). Other: Notice of Non-compliant Amendment.

### **DETAILED ACTION**

1. The amendment filed October 31, 2006, is acknowledged and has been entered. Claims 45-47 have been canceled. Claims 1, 4, and 13 have been amended. Claims 48-51 have been added.
2. Claims 1, 4, 8-13, 15-32, 35-43, and 48-51 are pending in the application. Claims 16-19, 22, and 30-32 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.
3. Claims 1, 4, 8-13, 15, 20, 21, 23-29, 35-43, and 48-51 are currently under prosecution.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. The following Office action contains NEW GROUNDS of rejection necessitated by amendment.

### ***Response to Amendment***

6. The amendment filed on October 31, 2006, is considered non-compliant because it fails to meet the requirements of 37 CFR § 1.121, as amended on June 30, 2003 (see 68 *Fed. Reg.* 38611, Jun. 30, 2003). However, in order to advance prosecution<sup>1</sup>, rather than mailing a Notice of Non-Compliant Amendment, Applicant is advised to correct the following deficiency in replying to this Office action:

The amendment is non-compliant because the status identifier of claim 13 does not properly indicate that status as "currently amended", and furthermore the claim is

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<sup>1</sup> See M.P.E.P. § 714.03.

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not marked up to show each and every change that has been made relative to the immediate prior version of the claim.

Notably, claim 13 has been amended to delete recitation of the limitation "wild-type".

Briefly, the revised amendment practice now requires a listing of all claims beginning on a separate sheet. Each claim ever presented must be included in the listing of claims together with a single proper status identifier in parentheses. The permissible status identifiers include: "original", "currently amended", "canceled", "withdrawn", "previously presented", "new", and "not entered". The text of all pending claims, including withdrawn claims, must be presented. Markings to show only the changes made in the current amendment relative to the immediate prior version should be included with the text of all currently amended claims, including withdrawn claims that are amended. Added text must be shown by underlining the added text. Generally deleted text must be shown by strikethrough (e.g., ~~strikethrough~~); or if the strikethrough cannot be easily perceived, and for deletion of five or fewer characters, the deleted text may be marked by the inclusion of deleted text in double brackets (e.g., [[444]]). The text of "canceled" and "not entered" claims must not be presented; and consecutive "canceled" or "not entered" claims may be grouped together in one line (e.g., Claims 1-11 (canceled); Claims 51-62 (not entered)).

**Only the corrected section of the non-compliant amendment must be resubmitted (in its entirety), e.g., the entire "Amendments to the claims" section of applicant's amendment must be re-submitted. 37 CFR § 1.121(h).**

### ***Priority***

7. Applicant's claim under 35 U.S.C. § 119(e) for benefit of the earlier filing date of U.S. Provisional Application No. 60/269,257, filed February 16, 2001, and U.S. Provisional Application No. 60/269,118, filed February 15, 2001, is acknowledged.

However, claims 1, 8-12, 35-43, 48, and 50 do not properly benefit under 35 U.S.C. § 119(e) by the earlier filing dates of the priority documents claimed, since those

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claims are rejected under 35 U.S.C. § 112, first paragraph, as lacking adequate written description.

To receive benefit of the earlier filing date under 35 U.S.C. §§ 119(e) and/or 120, the later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application); the disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

Accordingly, the effective filing date of the claims is deemed the filing date of the instant application, namely February 14, 2002.

#### ***Grounds of Objection and Rejection Withdrawn***

8. Applicant's amendments and/or arguments filed August 3, 2006, and/or October 31, 2006, have obviated or rendered moot the grounds of objection and rejection set forth in the previous Office action mailed March 6, 2006.

#### ***Response to Arguments***

9. Applicant's arguments with respect to grounds of rejection set forth in the preceding Office, *which have not been maintained herein*, have been considered but are moot in view of the new ground of rejection set forth below.

#### ***New Ground of Objection***

10. Claim 23 is objected to because it omits an article (e.g., a) before "therapeutically effective amount", such that it reads, "which method comprises administering therapeutically effective amount of the pharmaceutical composition", which is grammatically incorrect. Appropriate correction or rebuttal is required.

***Grounds of Rejection Maintained***

***Claim Rejections - 35 USC § 112***

11. The rejection of claims 1, 8-12, and 35-43 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, is maintained.

At page 13 of the amendment filed August 3, 2006, Applicant has traversed this ground of rejection.

Applicant's arguments have been carefully considered but not found persuasive for the following reasons:

As explained in section 12(b) at page 9 of the preceding Office action claims 1, 8-12, and 35-43 are indefinite because claim 1 recites a term in parentheses (i.e., "Peptide II"). As explained, it cannot be ascertained whether the parenthetically enclosed term is meant to delineate, or limit the subject matter of the claims, or simply meant to be exemplary, parenthetical, or redefining.

Applicant has argued that it is clear from a reading of amended claim 1 that the inhibitory N-terminal fragment of wild-type ATF2 comprising amino acid residues 50-100 is also referred to in the application as "Peptide II".

In response to this argument, contrary to Applicant's assertion, "Peptide II" is not described as the equivalent of the inhibitory N-terminal fragment of ATF2, which is presently claimed (i.e., an inhibitory N-terminal fragment of ATF2 comprising from about amino acid residue 50 to about amino acid residue 100 of ATF2); *rather* the specification explicitly defines the term "Peptide II" as referring to "an N-terminal polypeptide fragment of ATF2 that comprises amino acid residues 50-100 and which inhibits ATF2 activity"; see paragraph [0038] of the published application<sup>2</sup> (page 9, lines 26 and 27, of the as-filed specification).

Again, it cannot be ascertained whether the parenthetically enclosed term is meant to delineate, or limit the subject matter of the claims, or simply meant to be exemplary, parenthetical, or redefining.

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<sup>2</sup> U.S. Patent Application Publication No. 2002/0169121 A1.

As such, the claim does not delineate the metes and bounds of the subject matter that Applicant regards as the invention with the requisite degree of clarity and particularity to permit the skilled artisan to know or determine infringing subject matter, so as to satisfy the requirements set forth under 35 U.S.C. § 112, second paragraph.

***Claim Rejections - 35 USC § 102***

12. The rejection of claims 13 and 20 under 35 U.S.C. 102(b) as being anticipated by Livingstone et al. (*EMBO J.* 1995; **14** (8): 1785-1797) is maintained.

Beginning at page 14 of the amendment filed August 3, 2006, Applicant has traversed this ground of rejection.

Applicant's arguments have been carefully considered but not found persuasive for the following reasons:

As noted in the preceding Office action, Livingstone et al. teaches a composition comprising a polypeptide comprising an amino-terminal fragment of ATF2, which consists essentially of (i.e., comprises) amino acid residues from about residue 50 to about residue 100, and a pharmaceutically acceptable carrier or excipient; see entire document (e.g., page 1786, Figure 1; and page 1796, column 1).

Applicant has argued that, while the polypeptide disclosed by the prior art comprises amino acids 50-100 of ATF2, "it does not teach Applicants' invention" because the claimed invention is "a fragment that consists essentially of about amino acid residue 50 to about amino acid residue 100 of ATF2" (page 14, paragraph 4, of the amendment filed August 3, 2006). Applicant has implied, though not clearly explained, that because the polypeptide of the prior art comprises amino acids 1-112 of ATF2, it is somehow distinguishable from a fragment of ATF2 that consists *essentially* of about amino acid residue 50 to about amino acid residue 100.

In response to this argument, Applicant has provided no factual evidence, sound scientific reasoning, or logical basis to support their assertion that the inclusion in the polypeptide disclosed by the prior art of amino acid residue 1 to about amino acid 49 has materially affected the basic and novel characteristics of the claimed invention. Moreover, it is submitted that there is factual evidence to the contrary that such a



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polypeptide has or retains the basic and novel characteristics of the claimed polypeptide consisting *essentially* of about amino acid residue 50 to about amino acid residue 100 of ATF2. Claim 1, for example, is directed to a polypeptide comprising an N-terminal fragment of ATF2 comprising from about amino acid 1 to about amino acid residue 115 of ATF2, which is useable to inhibit transcriptional activity of ATF2, so as to thereby inhibit the growth of a tumor cell contacted by the polypeptide. Thus, claim 1 provides factual evidence that the inclusion in the polypeptide disclosed by the prior art of amino acid residue 1 to about amino acid 49 has not materially affected the basic and novel characteristics of the claimed invention. Similar such factual evidence is found in the specification, as filed; see, e.g., paragraph [0037] of the published application.

Applicant has argued, because the polypeptide disclosed by the prior teaches a polypeptide comprising a GAL4 DNA binding domain, it is not suitable for administration to a subject in need thereof, and is therefore distinguishable from the polypeptide to which the claims are directed.

In response, the feature upon which Applicant relies (i.e., the suitability for administration to a subject in need thereof) is not recited in the rejected claims. Applicant is reminded that, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). See M.P.E.P. § 2145. Furthermore, with regard to claim 20, which is directed to a "pharmaceutically useful" compound, the intended use of the composition comprising the polypeptide of claim 13 and a pharmaceutically acceptable carrier or excipient does not limit the subject matter claimed, so as to materially or structurally distinguish it from the composition comprising the polypeptide and a pharmaceutically acceptable carrier or excipient (e.g., water), which is disclosed by the prior art. See M.P.E.P. § 2111.02.

Additionally, the specification describes a fusion protein comprising the inhibitory N-terminal fragment of ATF2 coupled to another protein, such that the fusion protein may be translocated; see, e.g., paragraphs [0043]-[0045]. There is factual evidence that the fusion of a polypeptide, which is alone capable of translocation, to the GAL4 DNA binding domain does not alter or affect its translocation. Ahmed et al. (*J. Immunol.*

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2006; 177: 315-321), for example, teaches a fusion polypeptide comprising IFNGR1 and the GAL4 DNA binding domain does not affect the ability of the polypeptide to translocate; see entire document (e.g., the abstract; page 317, column 1; and page 319, Figure 7). Notably, Applicant has provided no factual evidence, sound scientific reasoning, or logical basis to support any contradictory assertion that the inclusion in the polypeptide disclosed by the prior art of the GAL4 DNA binding domain has materially affected the basic and novel characteristics of the claimed invention.

Applicant has argued that the prior art does not teach a composition comprising the disclosed polypeptide and "a pharmaceutically acceptable carrier or excipient".

In response, the specification defines the term "a pharmaceutically acceptable carrier or excipient" as inclusive of water. Water, for example, is a component of one or more of the compositions disclosed by the prior art, which further comprise the disclosed fragment of ATF2; see, e.g., page 1796, column 1.

13. The rejection of claims 1, 8-12, and 35-43 under 35 U.S.C. 102(a) as being anticipated by Bhoumik et al. (*Clin. Cancer Res.* 2001 Feb; 7 (2): 331--342) (of record), as evidenced by Bhoumik et al. (*Proc. Natl. Acad. Sci USA.* 2004 Mar 23; 101 (12): 4222-4227), is maintained.

At page 15 of the amendment filed August 3, 2006, Applicant has traversed this ground of rejection.

Applicant's arguments have been carefully considered but not found persuasive for the following reasons:

As noted above, the rejected claims do not properly benefit under 35 U.S.C. § 119(e) by the earlier filing dates of the priority documents claimed, since those claims are rejected under 35 U.S.C. § 112, first paragraph, as lacking adequate written description.

So, as explained in the preceding Office action, Bhoumik et al. (2001) teaches an amino-terminal fragment of ATF2, which consists of amino acids 50-100 of the full-length protein; see entire document (e.g., the abstract). Bhoumik et al. teaches this fragment of ATF2 inhibited the growth of melanoma in mice (page 341, column 1).

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Bhoumik et al. (2001) teaches contacting tumor cells (e.g., late-stage melanoma cells; breast cancer cells) *in vitro* with this fragment of ATF2 increased their apoptosis, sensitizing the cells to the effects of chemotherapeutic agents, such as UCN-01 or the p38 inhibitor SB203580, and irradiation with ultraviolet light (e.g., the abstract; page 332, column 1; page 336, Figure 5; pages 337 and 338, Figure 6; page 341, column 1). Moreover, Bhoumik et al. (2001) teaches contacting tumor cells with this fragment of ATF2 and further treating the cells with NCS; see, e.g., page 335, Figure 3. Bhoumik et al. (2001) teaches the mechanism by which this fragment of ATF2 increases sensitivity of tumor cells to irradiation and chemotherapeutic agents likely involves competition with endogenous forms of ATF2 (page 340, column 2). Consistently, Bhoumik et al. (2001) teaches transcriptional activities mediated by AP1 target sequences, which are regulated by c-Jun-ATF2 heterodimers, are lower in melanoma cells contacted with this fragment of ATF2 (e.g., page 340, column 2).

Bhoumik et al. (2001) does not expressly teach that the process of contacting tumor cells with the inhibitory amino-terminal fragment of ATF2 causes a relative increase in the activity of JNK in those cells, as compared to the activity of JNK in cells not contacted with peptide. Nevertheless, as evidenced by Bhoumik et al. (2004), the process results in the sequestration of endogenous ATF2 to the cytoplasm, thus inhibiting its transcriptional activity, and concomitantly increases in the activity of JNK; see entire document (e.g., the abstract; page 4227, column 1).

### ***Claim Rejections - 35 USC § 103***

14. The rejection of claims 15 and 21 under 35 U.S.C. 103(a) as being unpatentable over Livingstone et al. (*EMBO J.* 1995; **14** (8): 1785-1797) in view of Nilsson et al. (*Nucleic Acid Res.* 1985; **13** (4): 1151--1162), is maintained.

Beginning at page 15 of the amendment filed August 3, 2006, Applicant has traversed this ground of rejection.

Applicant's arguments have been carefully considered but not found persuasive for the following reasons:

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Applicant has argued that Livingstone et al. does not teach an inhibitory N-terminal fragment of ATF2 and composition thereof in accordance with claims 13 and 20, respectively.

In response, contrary to Applicant's assertions and for the reasons set forth in the above rejection of claims 13 and 20 under 35 U.S.C. 102(b), the disclosure of Livingstone et al. anticipates those claims.

Applicant has argued that Nilsson et al. does not remedy the insufficiency of the teachings of Livingstone et al. to anticipate the rejected claims.

In response to such arguments against any of the individual references, Applicant is reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Admittedly, Livingstone et al. does not teach or expressly suggest a fusion polypeptide comprising an amino-terminal fragment of ATF2, which consists essentially of (i.e., comprises) amino acid residues from about residue 50 to about residue 100, and further comprising a translocation peptide sequence.

Nonetheless, as explained in the preceding Office action, Nilsson et al. teaches the production of recombinant polypeptides using a staphylococcal protein A expression vector system; see entire document (e.g., the abstract). Nilsson et al. teaches the recombinant polypeptides produced using this system are fusion proteins comprising a foreign gene product and staphylococcal protein A (see, e.g., the abstract; pages 1159-1161, "Discussion"). Nilsson et al. teaches staphylococcal protein A fusion proteins are translocated through the cytoplasmic membrane with the aid of a signal sequence (see, e.g., paragraph bridging pages 1151 and 1152). Nilsson et al. teaches staphylococcal protein A fusion proteins are efficiently purified by IgG affinity chromatography (see, e.g., page 1151, "Introduction"). Nilsson et al. teaches, after affinity purification, compositions comprising the fusion protein are treated to remove the staphylococcal protein A "tail" and release the foreign gene product (see, e.g., page 1152, "Introduction"; page 1154, Figure 1).

Therefore, it would have been obvious to one ordinarily skilled in the art at the time the invention was made to produce fusion polypeptides comprising amino-terminal fragments of ATF2, which comprise the amino acid residues from about residue 50 to about residue 100 of ATF2, and further comprising a translocation peptide using the staphylococcal protein A expression vector system described by Nilsson et al., because Livingstone et al. teaches making and using such fragments of ATF2 and Nilsson et al. teaches the expression system is used advantageously since, for example, the resulting product is a fusion protein comprising the protein of interest and staphylococcal protein A, which is efficiently purified by IgG affinity chromatography. One ordinarily skilled in the art at the time the invention was made would have been motivated to do so to produce purified fusion polypeptides comprising the amino-terminal fragments of ATF2 described by Livingstone et al.

### ***New or Reinstated Grounds of Rejection***

#### ***Claim Rejections – 35 USC §112***

15. Claims 1, 8-12, 35-43, 48, and 50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is a “new matter” rejection.

Claims 1, 8-12, 35-43, 48, and 50 recite a limitation requiring the inhibitory N-terminal fragment of ATF2 to comprise “from about amino acid residue 1 to about amino acid residue 115 of ATF-2” or “from about amino acid residue 45 to about amino acid residue 100 of ATF-2”.

At page 8 of the amendment filed August 3, 2006, Applicant has asserted that support for claim 1, as amended, and for claims 48 and 50 is found in the specification at, for example, page 3, lines 27-29, through page 4, line 1.

Contrary to Applicant's assertion, however, it does not appear that the specification, including the claims, as originally filed, provides written support of

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recitation in the rejected claims of a limitation requiring the inhibitory N-terminal fragment of ATF2 to comprise "from about amino acid residue 1 to about amino acid residue 115 of ATF-2" or "from about amino acid residue 45 to about amino acid residue 100 of ATF-2".

The disclosure at page 3, line 27, through page 4, line 1, to which Applicant has specifically referred reads:

In one aspect, the invention advantageously provides a method of inhibiting growth of a tumor cell. This method comprises inhibiting transcriptional activity of ATF2. Inhibition of transcriptional [sic] activity of ATF2 can include introducing a polypeptide comprising an N-terminal antagonist fragment of ATF2 into the tumor cell.

This disclosure does not describe the inhibitory N-terminal fragment of ATF2 to comprise "from about amino acid residue 1 to about amino acid residue 115 of ATF-2" or "from about amino acid residue 45 to about amino acid residue 100 of ATF-2".

At paragraph [0011] of the published application, the specification discloses the following:

In a specific aspect, the invention provides a polypeptide comprising a sequence from about amino acid residue 50 to about amino acid residue 75 of ATF2; more particularly from about amino acid residue 45 to about amino acid residue 100 of ATF2. In specific embodiments, the peptides consist of amino acid residues 50-100 (peptide II), 45-75, and 1-115.

This disclosure, however, does not describe the inhibitory N-terminal fragment of ATF2 to comprise "from about amino acid residue 1 to about amino acid residue 115 of ATF-2" or "from about amino acid residue 45 to about amino acid residue 100 of ATF-2". *Instead*, this disclosure describes polypeptides comprising the fragment of ATF2 that extends from the amino acid at about position 1 to the amino acid at about position 115, or alternatively the fragment extending from the amino acid at about position 45 to the amino acid at about position 100; and it further describes peptides consisting of amino acids 50-100, 45-75, and 1-115 of ATF2.

Then, at paragraph [0037] of the published application, the specification discloses the following:

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Based on the ability of specific fragments to mediate ATF2 inhibition, the inhibitor fragment comprises from about amino acid residue 50 to about amino acid residue 75, i.e., about a 25 amino acid peptide. In exemplified embodiments, a 30 amino acid residue peptide (45-75), a 50 amino acid residue peptide (50-100), and a 115 amino acid residue peptide (1-115) were found to inhibit ATF2 activity.

This disclosure also does not describe the inhibitory N-terminal fragment of ATF2 to comprise "from about amino acid residue 1 to about amino acid residue 115 of ATF-2" or "from about amino acid residue 45 to about amino acid residue 100 of ATF-2". *Instead*, this disclosure describes a fragment of ATF2 comprising from the amino acid at about position 50 to the amino acid at about position 75; and it further describes a peptide of 30 amino acids consisting of amino acids 45-75 of ATF2, a peptide of 50 amino acids consisting of amino acids 50-100 of ATF2, and a peptide of 115 amino acids consisting of amino acids 1-115 of ATF2.

Accordingly, it does not appear that the specification, including the claims, as originally filed, provides written support of recitation in the rejected claims of a limitation requiring the inhibitory N-terminal fragment of ATF2 to comprise "from about amino acid residue 1 to about amino acid residue 115 of ATF-2" or "from about amino acid residue 45 to about amino acid residue 100 of ATF-2".

This issue might be remedied if Applicant were to point to particular disclosures in the specification, including the claims, as originally filed, which are believed to provide the necessary written support for the language of the instant claims.

### ***Claim Rejections - 35 USC § 102***

16. The rejection of claims 1, 4, 8-10, 12, 13, 20, 23-26, 29, 35-39, 43, and 49-51 under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,579,856 B2, as evidenced by van Dam et al. (*EMBO J.* 1995 Apr 18; **14** (8): 1798-1811) and Bhoulmik et al. (*Proc. Natl. Acad. Sci. USA.* 2004 Mar 23; **101** (12): 4222-4227) (of record), is reinstated.

This ground of rejection is set forth in section 14, beginning at page 12, of the Office action mailed September 9, 2005.

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As noted in section 6 at page 5 of the preceding Office action mailed March 6, 2006, this ground of rejection had been withdrawn because claims 1 and 13 then recited the limitation "wild-type". As explained, it would be understood that the use of the term "wild-type" to describe a polypeptide, such as ATF2, connotes the polypeptide has a naturally occurring amino acid sequence, which differentiates the "inhibitory N-terminal fragment" to which the claims are directed from the "inhibitory N-terminal fragment" taught by the prior art, since the latter comprises a non-naturally occurring amino acid sequence, which was engineered in the laboratory by site-directed mutagenesis. Thus, because Applicant has amended claims 1 and 13 to delete recitation of a limitation requiring the ATF2 to be "wild-type", this ground of rejection has been reinstated.

Then, with further particular regard to claim 4, it was further noted in section 6 at page 5 of the preceding Office action that the prior art does not teach or fairly suggest an "inhibitory N-terminal fragment of ATF2", which *consists of* the region of ATF2 spanning from about amino acid 50 to about amino acid 75, and although claim 4 was then held to be indefinite, it had been interpreted as if it were drawn to such limited subject matter. Now, Applicant has amended claim 4 to recite "consisting essentially of", as opposed to "consisting of", which in accordance with M.P.E.P. § 2111.03, is herein interpreted as meaning, "comprising". Thus, because Applicant has amended claim 4 to delete recitation of a limitation requiring the fragment to consist of the region of ATF2 spanning from about amino acid 50 to about amino acid 75, this ground of rejection has been reinstated.

### ***Claim Rejections - 35 USC § 103***

17. The rejection of claims 1, 10, 11, 23, 26-28, 35, 39, 40, and 41 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,579,856 B2, as evidenced by van Dam et al. (*EMBO J.* 1995 Apr 18; **14** (8): 1798-1811) and Bhoomik et al. (*Proc. Natl. Acad. Sci. USA.* 2004 Mar 23; **101** (12): 4222-4227) (of record), in view of Ivanov et al. (*Oncogene.* 2000; **19**: 3003-3012), is reinstated.

This ground of rejection is set forth in section 15, beginning at page 16, of the Office action mailed September 9, 2005, and has been reinstated herein for the same



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reasons set forth above in the reinstated rejection of claims 1, 4, 8-10, 12, 13, 20, 23-26, 29, 35-39, 43, and 49-51 under 35 U.S.C. 102(e).

18. The rejection of claims 13, 15, 21, 23-26, and 29 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,579,856 B2, as evidenced by van Dam et al. (*EMBO J.* 1995 Apr 18; **14** (8): 1798-1811) and Bhounik et al. (*Proc. Natl. Acad. Sci. USA.* 2004 Mar 23; **101** (12): 4222-4227) (of record), in view of US Patent No. 6,335,178 B1, is reinstated.

This ground of rejection is set forth in section 16, beginning at page 19, of the Office action mailed September 9, 2005, and has been reinstated herein for the same reasons set forth above in the reinstated rejection of claims 1, 4, 8-10, 12, 13, 20, 23-26, 29, 35-39, 43, and 49-51 under 35 U.S.C. 102(e).

19. The rejection of claims 27 and 28 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,579,856 B2, as evidenced by van Dam et al. (*EMBO J.* 1995 Apr 18; **14** (8): 1798-1811) and Bhounik et al. (*Proc. Natl. Acad. Sci. USA.* 2004 Mar 23; **101** (12): 4222-4227) (of record), in view of US Patent No. 6,335,178, as applied to claim 13, 15, 21, 23-26, and 29 above, and further in view of Ivanov et al. (*Oncogene.* 2000; **19**: 3003-3012), is reinstated.

This ground of rejection is set forth in section 17 at page 20 of the Office action mailed September 9, 2005, and has been reinstated herein for the same reasons set forth above in the reinstated rejection of claims 1, 4, 8-10, 12, 13, 20, 23-26, 29, 35-39, 43, and 49-51 under 35 U.S.C. 102(e).

***Conclusion***

20. No claim is allowed.

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen L. Rawlings, Ph.D. whose telephone number is (571) 272-0836. The examiner can normally be reached on Monday-Friday, 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms, Ph.D. can be reached on (571) 272-0832. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stephen L. Rawlings, Ph.D.  
Primary Examiner  
Art Unit 1643

slr

January 18, 2007

Continuation of 4(e) Other: Claim 13 is not marked to show each and every change relative to the immediate prior version of the claim, as listed in the amendment filed December 9, 2005; notably, the recitation of the limitation "wild-type" preceding ATF2 has been struck from the claim, as presently amended.

**Notice of Non-Compliant  
Amendment (37 CFR 1.121)**

Application No.

10/076,905

Examiner

Stephen L. Rawlings, Ph.D.

Applicant(s)

RONAI, ZE'EV

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

The amendment document filed on 31 October 2006 is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
- ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other \_\_\_\_\_.
- ☐ 2. Abstract:
- ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B. Other \_\_\_\_\_.
- ☐ 3. Amendments to the drawings:
- ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other \_\_\_\_\_.
- ☒ 4. Amendments to the claims:
- ☐ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: See Continuation Sheet.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):  
\_\_\_\_\_

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

**TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:**

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.
2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

**Extensions of time** are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

**Failure to timely respond** to this notice will result in:

**Abandonment** of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or

**Non-entry** of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

Legal Instruments Examiner (LIE), if applicable

Telephone No.